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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,051	10/09/2001	Seung June Yi	2101-3186	3892

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EXAMINER
DAVIS, CYNTHIA L

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/972,051	YI, SEUNG JUNE
	Examiner	Art Unit	
	Cynthia L. Davis	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/14/2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-72* is/are pending in the application.

    4a) Of the above claim(s) *1-10, 15-17, 22-37, 40, 43, 45-62, and 65-69* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *11-14, 18-21, 38, 39, 41, 42, 44, 63, 64 and 70-72* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 11/22/2005, with respect to the rejection(s)of

claim(s) 11 and 38 under 35 USC 102 have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a

new ground(s) of rejection is made in view of 35 USC 103(a).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed
publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 11 and 38 are rejected under 35 U.S.C. 102(a) as being anticipated by

applicant's admitted prior art.

Regarding claim 11, a deciphering module that deciphers ciphered protocol data

units (PDUs) of the RLC layer received from a lower layer of the receiving device

through at least one of a plurality of channels. A data storing module that stores the

deciphered PDUs. A header removing module that removes headers from the

deciphered PDUS and a reassembly module that reassembles the deciphered PDUS

outputted from the header removing module into service data units (SDUs) and then

transmits the SDUs to an upper layer through an access point are disclosed in the

admitted prior art in the applicant's background of the related art section, in paragraphs

15 and 17 (disclosing the RLC receiving PDUs from a lower layer channel, deciphering the PDU's, removing the headers, and using the deciphered PDUs with the headers removed to construct SDUs, which are transmitted to a higher layer).

Regarding claim 38, deciphering ciphered protocol data units (PDUs) of the RLC layer received from a lower layer of the receiving device through at least one of a plurality of channels, storing the deciphered PDUs, removing headers from the deciphered PDUS and reassembling the deciphered PDUS outputted from the header removing module into service data units (SDUs) and then transmitting the SDUs to an upper layer through an access point are disclosed in the admitted prior art in the applicant's background of the related art section, in paragraphs 15 and 17 (disclosing the RLC receiving PDUs from a lower layer channel, deciphering the PDU's, removing the headers, and using the deciphered PDUs with the headers removed to construct SDUs, which are transmitted to a higher layer).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3.   Claims 13, 14, 41, 63, 70, and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art from applicant's disclosure in further view of Rostoker.

Regarding claim 13, the headers include sequence numbers (SN) representing order numbers of the PDUs is missing from applicant's admitted prior art. This is disclosed in Rostoker, column 16, line 1. It would have been obvious to one skilled in

the art at the time of the invention to include sequence numbers in the headers. The

motivation would be to keep the packets in order.

Regarding claim 14, a data retransmission management module that controls

retransmission of ciphered PDUs to the data receiving device is missing from

applicant's admitted prior art. This is disclosed in Rostoker column 13, lines 15-18, and

column 19, line 20 (disclosing retransmission of PDUs). It would have been obvious to

one skilled in the art at the time of the invention to retransmit PDUs when necessary.

The motivation would be to retransmit in case of an error.

Regarding claim 41, reading the removed headers is missing from applicant's

admitted prior art. This is disclosed in Rostoker, column 21, lines 46-48 (disclosing

storing routing information that is contained in the header, which would necessarily

involve reading the header). It would have been obvious to one skilled in the art at the

time of the invention to read the removed headers. The motivation would be to be able

to use any information that was included in the header.

Regarding claims 63 and 70, wherein each ciphered PDU comprises a header

and data is disclosed in the admitted prior art, paragraphs 16-17 (the header is not

removed until after deciphering occurs, the PDU has data that is later used to construct

the SDU). The header includes a sequence number is missing from applicant's

admitted prior art, but is disclosed in Rostoker, column 16, line 1. An optional length

indicator is missing from applicant's admitted prior art, but is disclosed in Rostoker,

column 32, lines 28-31. It would have been obvious to one skilled in the art at the time

of the invention to use the PDU describers of Rostoker in the system of applicant's

admitted prior art. The motivation would be to fully describe the packets using

descriptors in the header.

Regarding claim 72, a data retransmission module for controlling retransmission

of data related to the PDUs to which the headers stored in the data storing module are

added is missing from applicant's admitted prior art. This is disclosed in Rostoker,

column 13, lines 15-18, column 19, line 20 (disclosing retransmission of PDUs) and

column 11, lines 5-8 (disclosing manufacturing of headers for transmission). It would

have been obvious to one skilled in the art at the time of the invention to retransmit

PDUs when necessary with header information in the system of applicant's admitted

prior art. The motivation would be to retransmit in case of an error, with header

information so that the retransmitted PDUs may be routed.

4.   Claims 12 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable

over admitted prior art from applicant's disclosure in view of Forssell.

Regarding claim 12, the at least one of the plurality of channels is at least one of

DTCH, DCCH, CCCH, or SHCCH is missing from applicant's admitted prior art.

However, Forssell discloses in column 4, lines 11-13, a CCCH being available in a RLC

system. It would have been obvious to one skilled in the art at the time of the invention

to use a CCCH in the system of applicant's admitted prior art. The motivation would be

to use an available type of channel. The ciphered PDUs are received from a

transmitting side is disclosed in applicant's admitted prior art, paragraph 15 and figure 1

(showing transmitting and receiving sides). The access point is a UM-SAP is missing

from applicant's admitted prior art. However, Forssell discloses in column 3, lines 57-

59, that unacknowledged mode is an available RLC mode, and that the network

operates over an SAP in column 2, lines 54-55. It would have been obvious to one

skilled in the art at the time of the invention to use an UM-SAP in the system of

applicant's admitted prior art. The motivation would be to use a mode commonly

available in RLC communication (see also applicant's admitted prior art, paragraph 3).

Regarding claim 39, the at least one of the plurality of channels is at least one of

DTCH, DCCH, CCCH, SHCCH, or CTCH is missing from applicant's admitted prior art.

However, Forssell discloses in column 4, lines 11-13, a CCCH being available in a RLC

system. It would have been obvious to one skilled in the art at the time of the invention

to use a CCCH in the system of applicant's admitted prior art. The motivation would be

to use an available type of channel. The ciphered PDUs are received from a

transmitting side is disclosed in applicant's admitted prior art, paragraph 15 and figure 1

(showing transmitting and receiving sides). The access point is a UM-SAP is missing

from applicant's admitted prior art. However, Forssell discloses in column 3, lines 57-

59, that unacknowledged mode is an available RLC mode, and that the network

operates over an SAP in column 2, lines 54-55. It would have been obvious to one

skilled in the art at the time of the invention to use an UM-SAP in.the system of

applicant's admitted prior art. The motivation would be to use a mode commonly

available in RLC communication (see also applicant's admitted prior art, paragraph 3).

5.   Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over the

admitted prior art from applicant's disclosure in view of Rostoker in further view of

Forssell and Parmar. The at least one of the plurality of channels is at least one of

DCCH or DTCH is missing from applicant's admitted prior art. However, Parmar

discloses in column 4, lines 46-47, a DTCH being available in a RLC system. It would

have been obvious to one skilled in the art at the time of the invention to use a DTCH in

the system of applicant's admitted prior art. The motivation would be to use an

available type of channel. The access point is a AM-SAP is disclosed in applicant's

admitted prior art, figure 1 (showing an AM-SAP) and paragraph 3.

6.   Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over the

admitted prior art from applicant's disclosure in view of Forssell and Parmar. At least

one of the plurality of channels is at least one of DCCH or DTCH, and the access point

is an AM-SAP is missing from applicant's admitted prior art. However, Parmar

discloses in column 4, lines 46-47, a DTCH being available in a RLC system. It would

have been obvious to one skilled in the art at the time of the invention to use a DTCH in

the system of applicant's admitted prior art. The motivation would be to use an

available type of channel. The access point is a AM-SAP is disclosed in applicant's

admitted prior art, figure 1 (showing an AM-SAP) and paragraph 3.

7.   Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over

applicant's admitted prior art in view of Rostoker, Forrsell and Parmar in further view of

Grover.

Regarding claim 19, the deciphering module includes a deciphering block and a

demultiplex/routing block that transmits control PDUs received from the lower layer to

an RLC control module and transmits data PDUs to the deciphering block is missing

from applicant's admitted prior art. However, Grover discloses in column 10, lines 23-

26, a system that uses a demultiplexer to separate control and data information in a
decrypting system. It would have been obvious to one skilled in the art at the time of
the invention to demultiplex and decipher the control and data PDUs. The motivation
would be to distinguish the different kinds of PDUs for processing.

8.   Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over
applicant's admitted prior art in view of Rostoker, Forrsell and Parmar in further view of
Grover and Choi.

Regarding claim 20, the demultiplex/routing block checks a D/C field within the
PDUs to determine whether the PDUs are control PDUs or data PDUs is missing from
applicant's admitted prior art. However, Choi discloses in column 8, lines 64-66, a D/C
field to indicate whether a packet is control or data. It would have been obvious to one
skilled in the art at the time of the invention to check the D/C field to distinguish the
types of packets. The motivation would be to determine the type of packet for
processing.

9.   Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over
applicant's admitted prior art in view of Rostoker, Forrsell and Parmar in further view of
Grover, Choi, and Lindquist.

Regarding claim 21, the header removing module extracts piggybacked
information from the data PDUs is missing from applicant's admitted prior art. However,
Lindquist discloses in column 9, lines 52-57, extracting piggybacked values from a
transmission. It would have been obvious to one skilled in the art at the time of the
invention to extract piggybacked information as is done in Lindquist in the system of

applicant's admitted prior art. The motivation would be to process all the information in the signal.

10.   Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Rostoker in further view of Grover.

Regarding claim 42, the deciphering step includes transmitting control PDUs an RLC control module and deciphering only data PDUs is missing from applicant's admitted prior art. However, Grover discloses in column 10, lines 23-29, a system that uses a demultiplexer to separate control and data information in a decrypting system. It would have been obvious to one skilled in the art at the time of the invention to demultiplex and separate the control and data PDUs, and decrypt the PDUs as needed. The motivation would be to distinguish and properly process the different kinds of PDUs.

11.   Claims 64 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Rostoker in further view of Treadaway.

Regarding claim 64, the sequence number is not ciphered and the data and the optional length indicator are ciphered is missing from applicant's admitted prior art. However, Treadaway discloses in figure 17 and column 24, lines 1-15, a packet structure that appends the length field to the data first, then performs encryption and adds sequence numbers. It would have been obvious to one skilled in the art at the time of the invention to use the packet structure of Treadaway in the system of applicant's admitted prior art. The motivation would be to provide synchronization information to the receiving terminal (Treadaway, column 24, lines 11-13).

Regarding claim 71, the sequence number is not ciphered and the data and the

optional length indicator are ciphered is missing from applicant's admitted prior art.

However, Treadaway discloses in figure 17 and column 24, lines 1-15, a packet

structure that appends the length field to the data first, then performs encryption and

adds sequence numbers. It would have been obvious to one skilled in the art at the

time of the invention to use the packet structure of Treadaway in the system of

applicant's admitted prior art. The motivation would be to provide synchronization

information to the receiving terminal (Treadaway, column 24, lines 11-13).
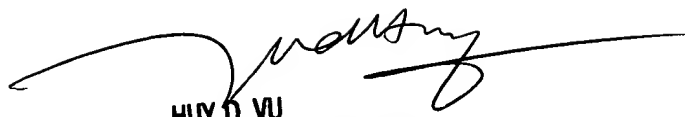
Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cynthia L Davis whose telephone number is (571) 272-

3117. The examiner can normally be reached on 8:30 to 6, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

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CLD
1/11/2006

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